142881



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

230 SOUTH DEARBORN ST. CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF

5SMOA

MEMORANDUM

SEP 24 1991 DATE:

Review of Initial Draft Quality Assurance Project Plan SUBJECT:

(QAPjP) for Oversight Activities at Waukegan Manufactured Gas and Coke Plant Site, Waukegan,

Illinois.

FROM:

Quality Assurance Section July

TO: James Mayka, Chief

Illinois/Indiana Section

ATTENTION: Cindy Nolan, Remedial Project Manager

We have completed our review of the subject initial draft QAPjP (QAS Log-In #1576) received on July 23, 1991. The present QAPjP is not approvable since it contains deficiencies which are detailed in this memorandum (Please note that no Pre-QAPjP meeting was held for this project). These deficiencies include Central Regional Lab (CRL) comments. This memorandum reflects the finalized review for this revision.

CRL (Jan Pels) should be contacted regarding the following considerations:

- 1) Samples will be forwarded as low concentration samples. However, some of these samples may well be medium concentration soil and water samples. The CLP lab will have to be notified of this because the low detection limits are not applicable to medium concentration soils and waters.
- 2) Check with CRL to some if it is acceptable to send liquid rinsates as field hands not soil. They should be identified as "equipment rinsates", not field blanks. If these "equipment rinsates" are to be collected, they should be sent with the aqueous samples because they will be analyzed as aqueous samples by the laboratory.

Please note that additional CRL comments are stated as comments IE8 (items c,d, and e).

Comments annotated with an asterisk (*) are provided for your review and consideration.

Our comments are as follows:

I. QUALITY ASSURANCE PROJECT PLAN

A) Title Page

The title page should contain the approval signature space for the PRC Project Manager and/or QA manager. Please include.

B) Project Description

- Section 1.3 states that oversight locations will be both biased and random. Please provide more information as to which samples will be collected biased and which will be collected at random. In addition, random samples can be determined in advance and do not have to be determined at the site. Therefore, specify the location of the random samples.
- 2) Section 1.3., third paragraph: The samples will be submitted for TCL and TAL analysis. Please clarify this statement by specifying that the samples will be analyzed by the Organic SOW Document OLM01.1 (or most recent revision) and the Inorganic SOW Document ILM01.0 (or most recent revision) because the TCL/TAL lists may vary from SOW to SOW.
- 3) Table 1.1. (NOTE: All comment below also apply to Table 4.1. of this QAPjP):
 - a) This table should be corrected to reflect the "phased" approach presented in the FSP. Please detail the Phase I and Phase II sampling individually.
- * b) Trip blanks are associated with AQUEOUS VOC samples only. Please delete the trip blank designation for the soil samples.
 - c) For the 14 soil borings to be collected, 2 field duplicates need to be collected. Please change the "1" to "2".
 - d) Note (5) states that soil samples may be analyzed for dibenzofurans and dioxins. This analysis does not appear in the PRP QAPjP. If this analysis is to done, more information will have to be presented

- (i.e. there is an SAS request for this analysis, DQO level, intended data usage, holding time, etc.). If this is a typographical error, please delete.
- e) Field blanks are not required to be collected for soil samples. If field blanks for soil samples are desired, describe their preparations in detail (e.g. the blank soil used, water blanks will be called "rinsate blanks", etc.) Please change this table accordingly.
- * 4) Section 1.4.: The project schedule should discuss not just sampling activities, but also the amount of time anticipated for data assessment, data validation, and sample analysis. Please include.
 - 5) No intended data usage or Data Quality Objectives (DQOs) have been specified in this section. Please include.

C) Project Organization and Responsibility

- 1) More clarification is required for all field activities. For example, who at PRC is responsible for the oversight of sample collection? Please state ALL personnel who will be responsible for field activities and their respective responsibilities.
- 2) The project organization chart needs some structure for the field activities to be performed. Please include a box and the individual who is responsible for field activities.
- 3) The responsibilities of all people in Figure 2-1 needs to be stated. Please include.
- 4) State the individual responsible for data assessment.
- 5) Please state who is responsible for internal field audits.
- 6) Please state that U.S. EPA Region V CRL is responsible for external field performance audits and Region V CDO is responsible for external field system audits.
- D) Quality Assurance Objectives for Measurement Data in terms of Precision, Accuracy, Completeness, Representativeness, and Comparability
 - 1) The second paragraph mentions analytical precision,

accuracy and completeness. Representativeness and Comparability are not addressed, however. Please include a description of these parameters and state the steps being taken to ensure representativeness and comparability. Refer to Attachment 5 of the document "Contents Requirements for a Quality Assurance Project Plan" (see attachment 1).

- 2) Second paragraph, second sentence: State the CLP SOW referenced in this section (see comment B2 above).
- * 3) Fifth paragraph: Correct the sentence to state that "Trip blanks will be analyzed for aqueous VOC samples".

E) Sampling Procedures

- 1) State who is supplying the sample bottles.
- 2) If Barr is collecting the samples for the oversight, there needs to be a reference to the soil and water collection methods to be used. Please reference the specific areas of the PRP QAPjP and FSP where these SOPs are located.
- 3) Please include the sample numbering system to be used for the oversight project. Please include the sample designation for each matrix, and all QC samples and include an example for each matrix.
- 4) Field duplicates shall be collected at a frequency of one per ten or fewer investigative samples. Please change the sentence on page 2 of this section.
- 5) Page 2, sixth paragraph: Who will prepare the trip blank? Please state.
- 6) See comments a-e in B3 above.
- 7) Page 4, last sentence: The sentence should read "Coolers will be shipped by overnight carrier on the same day as sampling".
- 8) Table 4.2.: Please correct this table as follows:
 - a) VOC in water should be preserved with HCl to a pH < 2 in addition to 4°C preservation.</p>
 - b) Cyanide in water is preserved with NaOH to a pH > 12.
 - c) Only one bottle is needed for metals (water). Please delete the Mercury container.

- d) For soils, only one bottle is required for metals. Please delete the extra bottles for Mercury and Cyanide.
- e) For semivolatiles and pesticide/PCBs, only 1 (one) 8 ounce container is necessary. Please correct.

F) Calibration Procedures and Frequency

- 1) Reference the field measurement SOPs to the specific sections of the PRP QAPjP where the SOPs can be located.
- 2) Second paragraph: See comment B2 above.

G) Analytical Procedures

- 1) Please provide a reference to the target compounds and their detection limits in Appendix A.
- 2) Please clarify this section by specifying that the samples will be analyzed by the Organic SOW Document OLMO1.1 (or most recent revision) and the Inorganic SOW Document ILMO1.0.

H) Data Reduction, Validation, and Reporting

Please reference the CLP SOW Documents for Organic and Inorganic Analyses (see comment G2 above).

I) Internal OC Checks

- 1) Please reference the CLP SOW Documents for Organic and Inorganic Analyses (see comment G2 above).
- 2) Please reference the internal QC field checks to the field SOPs in the PRP QAPjP for this project.

J) Performance and System Audits

1) First paragraph: Please correct this sentence to state "Internal field audits will be performed at the discretion of the Project Manager or Quality Assurance Officer.". (NOTE: Clarify these individuals as PRC personnel.)

2) State that external field audits are the responsibility of U.S. EPA Region V CRL and/or CDO.

K) Preventive Maintenance

Please reference the CLP SOW Documents for Organic and Inorganic Analyses (see comment G2 above).

L) Corrective Action

- 1) This section should be separated into laboratory and field corrective action.
- 2) For the laboratory corrective action, please reference the CLP SOW Documents for Organic and Inorganic Analyses (see comment G2 above).
- 3) For the field corrective action, please state 1) who will initiate the corrective action, 2) who will develop and approve the corrective action, and 3) who will implement and document the corrective action.

M) Appendix A

The CRQL tables in this Appendix are not the ones in the CLP SOW OLMO1.1. Please delete these tables and incorporate the tables attached to this memorandum (attachment 2).

Please have the RPM forward this memo to the contractor immediately. For the next revision, submit only those pages which need to be corrected. If you have any questions regarding this report, please feel free to contact Cheng-Wen Tsai, of my staff, at 886-6220.

cc: K. Khanna, TSU

D. Payne, CRL